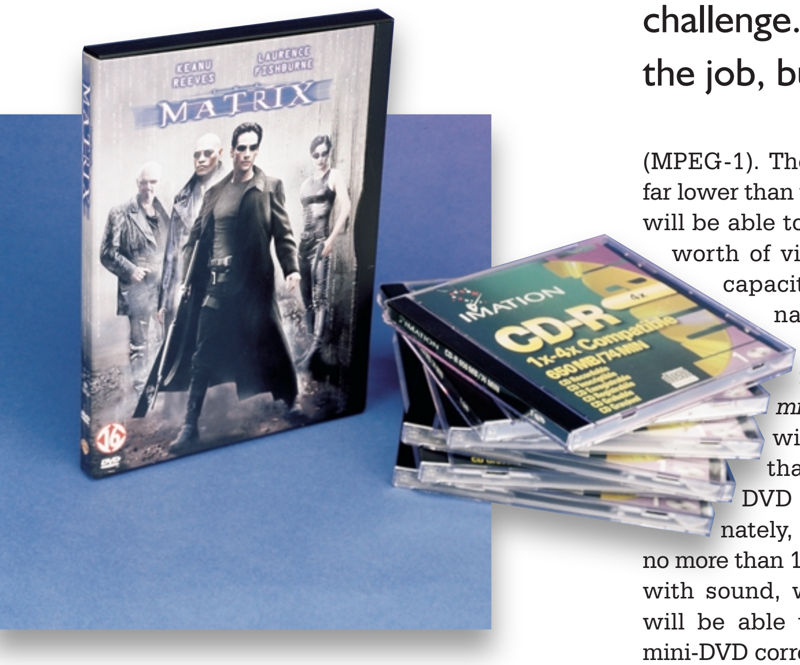
Make Your Own Mini DVDs

15 minutes worth of film on a CD-R

By Harry Baggen

The fact that DVDs are not easily duplicated makes just about any attempt at copying these discs a real challenge. A number of programs are available to do the job, but as you will see it is far from easy.



The tremendous amount of data coupled with the complex way image and sound are interwoven, and not forgetting the built in copy protection system make it pretty difficult to copy programme material stored on DVD. As we write this, there are no affordable DVD recorders and blank media. None the less, many DVD users of the enthusiastic type have been able to copy favourite scenes from DVD movies to hard disk or CD-ROM.

In principle, there is no objection against copying film fragments for your own personal use, for example, to compile your own collection of film or video clips. By means of a variety of protective measures including the region code and CSS, it is not possible with most DVDs to copy a VOB file, that is, the file containing the picture and sound information) to hard disk. And even if you manage to obtain a usable VOB file, there are more hurdles, because a fair number of operations are required to arrive at a file containing the desired video and sound information. We went through the trouble of reading some of the relevant descriptions that circulate on the Internet. There exist two popular variants. One s to convert DVD information in such a way that a video CD can be produced (MPEG-1). The resultant quality is far lower than that of a DVD, but you will be able to squeeze 60 minutes worth of video into the storage capacity offered by an ordinary CD-R. The other method boils down to making a so-called *mini-DVD*. This is a CD-R with the file structure that complies with the DVD standard. Unfortunately, such a CD-R will hold no more than 10 to 15 minutes of film with sound, while not every DVD will be able to reproduce such a mini-DVD correctly.

In both cases you start with copying the VOB file to hard disk. This is usually done with ‘crack’ utilities like DeCSS or VOB Ripper. By killing the copy protection code, these programs ensure that the VOB file can actually be used. Although the film industry will do just about anything to get these programs off the face of the earth, that is nearly impossible to achieve as long as they are used for private purposes.

If you want to make a video CD, the next step is to convert the picture format from NTSC to PAL (if necessary) using a utility like NTSC2FILM. Next, the result may be converted into video-CD format using an MPEG-1 encoder such as the Panasonic encoder with associated VOB filters. Most encoders are unable to tackle VOB files directly. Worse, a complex intermediate step is required to parse the VOB files into its sound and picture components, which subsequently have to be combined again into another format like AVI.

Making a mini-DVD is even more elaborate because you also have to create your own menu structure.

The steps to follow are basically the same as described above. In this case, however you have to employ an MPEG-2 encoder to create a new MPEG2 file. Next, the new M2V and AC3 sound file have to be multiplexed (or merged) into one file. This is usually done with programs like Streamweaver. The required menu structure for the mini-DVD is usually produced with a like CDMotion, which allows your own opening menu to be designed with start buttons for the various scenes, etc. The end result will be a directory called Video_ts containing all files you will need to make a DVD. Using a program like Nero, the whole caboodle may then be burned onto a CD-R. If everything went well, you then have a mini-DVD (well, actually a CD-R with 15 minutes worth of image and sound). In practice, we found that it took about 10 hours of computer time to copy a film of about 1.5 hours on a number of CD-R discs.

That, admittedly, is a lot of trouble to go through for a film you can buy for about £15. Very few people will be prepared to go to such lengths to copy DVD material as described here. So, the film industry has little to worry about in the absence of affordable DVD recorders, very fast computers and, of course, blank disks. In essence, the methods and programs mentioned here are for DVD freaks only and possibly for criminals involved in large-volume production of illegal DVD copies.

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